

On the Parakeet *Psittacula intermedia* (Rothschild) [Aves : Psittacidae]

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Psittacula intermedia was described by Rothschild (1895) on a single trade skin shipped to him from Bombay. He accepted it as an Indian bird. Later, he obtained six more specimens from one Mr. Dunstall, a plumassier of London. Hartert (1924, p. 126) in his account of these specimens stated that these six skins were selected from a greater number of these birds.

Owing probably to the rarity and uncertain locality *Psittacula intermedia* did not receive the attention it deserves in Indian ornithology. Both Rothschild's and Hartert's papers had apparently been overlooked by subsequent workers on Indian ornithology, and the species found no place in any work of such eminent ornithologists as Blanford, Stuart Baker, Ticehurst, and Whistler. Nevertheless, we find it resuscitated, without locality, by Peters (1937, p. 246).

The problems created by this bird are many and somewhat intriguing. I have made an attempt here to determine its status, its affinities, and the possible place of its occurrence.

Rothschild (loc. cit.) pointed out that *Ps. intermedia* is somewhat intermediate between *Ps. schisticeps* (= *himalayana*¹) and *Ps. cyanocephala*². There appear then two possibilities as to its status:

(1) that it is a hybrid between *Ps. himalayana*/*Ps. finschi* and *Ps. cyanocephala*/*Ps. roseata*, produced by nature or by man; and

(2) that it is a genuine species wild at some unknown locality.

Regarding the possibility of its being hybrid, Rothschild (loc. cit.) has expressed the opinion that it is not a hybrid, and Hartert (loc. cit.) has stated: 'If it were a hybrid, so many specimens would not very

¹ *Psittacula himalayana*, as hitherto understood, has recently been shown by Husain (1959) to be composed of two separate species, *Ps. himalayana* and *Ps. finschi*.

² *Psittacula cyanocephala* has subsequently been shown by Biswas (1951, pp. 1-6) to be composed of two species, *Ps. cyanocephala* and *Ps. roseata*.

likely have come at the same time, and one would expect them to vary, but they are all alike.' Indeed, I have independently come to the same conclusion after an examination of all these specimens. Besides, if they were man-made hybrids, they would necessarily have been cage birds. But the character of their toes does not indicate this. *Psittacula intermedia* may, therefore, be regarded as a genuine wild species.

It is necessary to record here a few words about the known specimens of *Ps. intermedia*. Including the type only seven specimens of the species are believed to exist, and they are all housed in the Rothschild Collections of the American Museum of Natural History, New York. None of the specimens is sexed but, from coloration, six of them appear to be exceedingly similar adult males, while the seventh (A.M.N.H. No. 621545) is an immature specimen, being green all over, and its sex cannot be guessed. Incidentally, it may be added that this specimen has as long a wing as that of the longest-winged male specimen, and it matches well with immature examples of *Ps. himalayana*, both in coloration and in size. I am thus led to consider it an immature specimen of *Ps. himalayana*, which brings down the total number of known specimens of *Ps. intermedia* from seven to six.

All the specimens are in more or less fresh plumage. In one (A.M.N.H. No. 621544) the central tail feathers still show the sheaths at their bases. The post-juvenile moult in another specimen (A.M.N.H. No. 621542) is almost finished. Its body feathers are all very fresh, its wings and tail are in moult, and its head has new red and blue feathers with some greenish towards their centres. A third specimen (No. 621543) is a trifle different from the other specimens in having very little yellow on the tips of its central rectrices, and more green than verdigris on the rump.

As has already been stated by Rothschild and by Hartert, *Ps. intermedia* is intermediate between *Ps. himalayana*/*Ps. finschi* and *Ps. cyanocephala*/*Ps. roseata*. A careful comparison of the five species shows that *Ps. intermedia* shares characters with the four other species as presented in Table 1. It would appear from the above that if coloration alone is considered *Ps. intermedia* is closer to *Ps. cyanocephala*/*Ps. roseata* than to *Ps. himalayana*/*Ps. finschi* (*contra* Rothschild). However, taking into consideration the size factor (Table 2) also, I am inclined to agree with Rothschild that *Ps. intermedia* is nearer *Ps. himalayana*/*Ps. finschi*. Furthermore, the conglomeration of characters among the five species, as presented in Table 1, suggests that they are genetically related.

TABLE 1.
SHARING OF CHARACTERS AMONGST THE MALES OF *Psittacula roseata*, *Ps. cyanocephala*, *Ps. intermedia*, *Ps. himalayana*, AND *Ps. finschi*.

	<i>Ps. roseata</i>	<i>Ps. cyanocephala</i>	<i>Ps. intermedia</i>	<i>Ps. himalayana</i>	<i>Ps. finschi</i>
<i>Ps. roseata</i>	..	g, h, i	E, F	c, E, F	c
<i>Ps. cyanocephala</i>	..	A, e, f	B, C, D	B, D	B, D, e
<i>Ps. intermedia</i>	..	B, C, D	A'	B, D, E, F, G, H, I	B, D, G, H, I
<i>Ps. himalayana</i>	..	B, D	B, D, E, F, G, H, I	a	a, B, c, d, G, H, I
<i>Ps. finschi</i>	..	B, D, e	B, D, G, H, I	a, B, c, d, G, H, I	F/f

Explanation of symbols :

Crown : rich lilac (A), pale lilac (A'), intermediate (A'), slaty (a) ; verdigris collar : present (B), absent (b) ; rump : verdigris (C), green (c) ; under wing-coverts : verdigris (D), green (d) ; wing patch : darker red-brown (E), lighter red-brown (e) ; tips of central tail feathers : yellow (F), white (f) ; mandible : yellowish buff (G), blackish (g) ; wing size : large (H), small (h) ; bill size : large (I), small (i).

As to the place of occurrence of *Ps. intermedia*, nobody knows for certain where it occurs. Nor has any ornithologist ever seen this bird alive in nature. Rothschild thought that it occurs somewhere in the 'Western Provinces' of India, meaning western Himalayas, because

TABLE 2.—MEASUREMENTS IN MILLIMETRES OF *Psittacula roseata*, *Ps. cyanocephala*, *Ps. intermedia*, *Ps. himalayana*, AND *Ps. finschi*.

		Wing	Tail	Bill from cere
<i>Ps. roseata</i>	30 ♂	135-150 (142.3)	152-198 (178.5)	16-20 (18.4)
Sikkim, northern Bengal, Assam, Burma (except Tena- sserim)	21 ♀	132-143 (138.0)	140-179 (157.7)	16-18.5 (18.0)
<i>Ps. cyanocephala</i>	15 ♂	143-150 (146.0)	195-253 (218.7)	18-19 (18.4)
Himalayas from the Punjab to northern Bengal	13 ♀	139.5-144 (143.2)	190-200 (196.3)	17-18 (17.6)
<i>Ps. intermedia</i>				
"India. Nat. Skim." TYPE	1 (♂)	157	—	20.5
"India." Other specimens	5 (♂)	148, 155, 155 + 156, 158	185, 202, 221	19, 20, 20, 21, 21
<i>Ps. himalayana</i>	23 ♂	162-174 (167.1)	172-270 (232.5)	21-23.5 (22.2)
Himalayas from Kashmir to Nepal.	10 ♀	155-166 (162.2)	175-231 (202.0)	20.5-22.5 (21.3)
<i>Ps. finschi</i>	16 ♂	148-156 (153.0)	244-270 (256.5)	22-23 (22.3)
Assam, upper Burma	5 ♀	143-149 (145.5)	225-251 (240.1)	21.5-23 (22.1)

Figures in parentheses represent average measurements.

along with the type 'came two skins of *P. schisticeps*' (= *himalayana*). Hartert believed that it 'evidently came from some part of the Himalayas, as it was accompanied by other Himalayan birds', and hinted at the possibility of its occurrence in the western Himalayas. On the label (Rothschild's Tring Museum label) of the type specimen, however, we read: 'India Nat. Skim.' This may be a slip meaning either 'native skin (a skin collected by a native) from India', or 'India, Native Sikim'—as present Sikkim used to be called by the British authorities in olden days to distinguish it from British Sikkim = Darjeeling district. In the latter case, it is impossible to know now whether the change in the locality of the type label was merely a

clerical error or written under instruction. It is possible that either Rothschild or Hartert, or both, had reasons to change their earlier opinion on the probable place of occurrence of the bird, but there does not appear to be any published account to corroborate this assumption. The labels of the other specimens simply bear 'India' as the locality.

Four species of *Psittacula*, namely *Ps. eupatria*, *Ps. krameri*, *Ps. cyanocephala*, and *Ps. himalayana*, occur in the western Himalayas (west of Kumaon), while as many as seven species, i.e. the four above-named species plus *Ps. roseata*, *Ps. finschi*, and *Ps. alexandri*, are found in the eastern Himalayas (Kumaon eastward). Competition among the species of *Psittacula* would, therefore, seem to be greater in the eastern Himalayas. However, the fact that the wing, tail, and bill are larger in *Ps. intermedia* than in *Ps. cyanocephala* and *Ps. roseata* may perhaps indicate that the former ranges to an altitude higher than the latter, and nearly as high as *Ps. himalayana*/*Ps. finschi*. Along the whole length of the Himalayas, in the altitudinal zone of approximately 1800-2400 metres, the only species of *Psittacula* known to occur are *Ps. himalayana* and *Ps. finschi*. Possibly, *Ps. intermedia* co-exists with either or both of them in this altitudinal belt where obviously competition among them is expected to be comparatively less than it is elsewhere. It is likely that the species has escaped the notice of ornithologists so far because of its probable localized distribution. Furthermore, great portions of the Himalayas, particularly the Assam Himalayas, remain yet to be faunistically explored.

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REFERENCES

- Biswas, B. (1951) : Revisions of Indian birds. *Amer. Mus. Novit.*, No. 1500 : 1-12.
 Hartert, E. (1924) : Types of birds in the Tring Museum. *Novit. Zool.* 31 : 112-134.
 Husain, K. Z. (1959) : Taxonomic status of the Burmese slaty-headed parakeet. *Ibis* 101 : 249-250.
 Peters, J. L. (1937) : Check-list of birds of the World, Cambridge, Mass. 3 : 246.
 Rothschild, W. (1895) : On a new parrot. *Novit. Zool.* 2 : 492.